

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Indra LAKSONO, et al.

Title: SYSTEM AND METHOD TO PROVIDE VIDEO TO A PLURALITY OF
WIRELESS DISPLAY DEVICES

App. No.: 10/081,084 Filed: February 22, 2002

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REPLY TO EXAMINER'S ANSWER

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REMARKS IN REPLY TO EXAMINER'S ANSWER BRIEF

The Appellants provide the following remarks in response to particular issues raised in the Examiner's Answer mailed September 1, 2009.

The Appeal Brief describes a distinction between a feature of each of the independent claims and the applied references in that the claims provide that it is the display device, as the receiver, that determines a select channel of a plurality of channels (or a select multicast address of a plurality of multicast address) via which the display device is to receive a particular version of a video stream, whereas the most relevant references on this point, Cheriton (U.S. Patent No. 6,831,917) and Deshpande (U.S. Patent No. 7,191,246), provide that it is the host/switch/server that makes this determination. The particular issues raised by the Examiner in the Examiner's Answer with respect to this issue are addressed in turn below:

As noted at page 6 of the Appeal Brief, "Cheriton teaches that the subscriber 550 subscribes to the same multicast address, and it is the NAT compatible switch 300 that determines which of the low-resolution channel or the high resolution channel is to be transmitted to the subscriber 550. Therefore, it is the NAT compatible switch 300, rather than the subscriber 550/display device, that determines the select channel of a plurality of channels, and not the **display device** as recited by claims 31 and 76." In response, the Examiner discusses at pages 12 and 13 of the Examiner's Answer how the embodiment of Figure 7 of Cheriton teaches the receipt of a single stream at the switch, from which the switch teaches the generation of two versions of the stream/program. From this observation, the Examiner reasons that "[t]herefore Cheriton teaches a system where subscribers subscribe to either a high quality or low quality feed, which meets the limitation found in claim 31." *Examiner's Answer*, p. 13. However, while the Examiner is correct in that the subscribers in the system of Cheriton "subscribe to either a high quality or low quality feed," the Examiner errs in concluding that this

observation meets the relevant limitations of claim 31 of “determining at the display device a select channel of a plurality of channels of a multicast channel based on the data transmission rate.” As noted above and in more detail at pages 6-8 of the Appeal Brief, the subscriber of Cheriton always subscribes to the same multicast address and it is the switch 300 that makes the decision as to which subscribers are to receive which version of the stream. As such, there is no plurality of channels/plurality of multicast address from which the receiver of Cheriton is to select one from. To wit, Cheriton fails to disclose or otherwise contemplate that the receivers have access to any information regarding any plurality of channels, nor does Cheriton disclose that any such information could be provided to the receivers. Without knowledge of the plurality of channels, the receivers of Cheriton necessarily cannot select a channel from the plurality of channels. Cheriton therefore fails to disclose or render obvious that a select channel of a plurality of channels is determined at the display device as provided by claims 31 and 76.

At pages 13 and 14 of the Appeal Brief, Appellants noted that:

The disclosure of Deshpande fails to suggest to one of ordinary skill in the art to use the server/transmitter-side multicasting taught by Deshpande at a receiver-subscribed multicasting as recited by claim 58. As a first issue, while the background of Deshpande discloses that prior-art systems implement receiver-subscribed multicasting of different video streams, the detailed description of Deshpande pertaining to the invention of Deshpande fails to disclose the use of receiver-subscribed multicasting. To wit, it is clear from the background section that the inventors of Deshpande were aware of multicasting techniques, but multicasting is never mentioned or otherwise referenced in the detailed description section that describes the actual invention of Deshpande. The omission of any mention of multicasting in this section discredits the assertion that the video streams generated by the clustering technique of Deshpande are distributed via receiver-subscribed multicasting. As a second issue, in the technique of Deshpande, the display receivers periodically report their local reception bandwidths, which are used by the server 86 to group the display receivers in clusters having similar local reception bandwidths, and the server 86 then provides to each cluster of display receivers a version of a video stream that is compatible with the local reception bandwidth of the cluster. Thus, the periodically readjusted clustering as taught by Deshpande is accomplished by changing the video stream transmitted to a display receiver at the server 86 in response to a change in the cluster to which the display receiver is assigned, rather than having the display receivers play an active role in reassigning themselves to

new video streams when clustering changes. Thus, it is the server 86 that assigns video streams to particular display receivers based on their bandwidth, rather than the display receivers selecting their own video streams based on their bandwidth. This approach is contrary to the technique of having the receiver subscribe to a particular multicast group based on data transmission rate as allegedly taught by Chou. As with Cheriton, the technique of Chou cannot be “added” to the system of Deshpande, but rather the technique of Chou would have to replace the server-based technique of Deshpande.

At pages 18 and 19 of the Examiner’s Answer, the Examiner responds to the observation that Deshpande fails to teach that it is the receivers that select the multicast address from a plurality of multicast addresses by stating:

the appellant then argues that [the] server, and not the receivers play an active role in bandwidth allocation. This is the opposite of what is stated in the cited section of Deshpande [], which states that ‘During a layered multicast the source or server 222 transmits each layer of the layered signal to a separate multicast IP group and takes not active role in allocating bandwidth’[]. Therefore it is apparent that the receivers and not the server take the active role in allocating bandwidth.

Contrary to the Examiner’s assertions, the Appellants have not asserted that the receivers do not “play an active role in bandwidth allocation.” Rather, it is irrelevant who plays “a role in bandwidth allocation” as bandwidth allocation does not pertain to whether it is the receiver that selects a particular multicast address from a plurality of multicast addresses. Bandwidth allocation, and who plays “an active role,” is not determinative of which component is the one that determines the particular multicast address to which the receiver is to subscribe. As noted above, it is the server that groups the receivers based on the receivers’ bandwidths in the system of Deshpande. Further, as with Cheriton, Deshpande fails to disclose or otherwise contemplate that the receivers have access to information regarding the plurality of multicast addresses. Without knowledge of the plurality of multicast addresses, the receivers of Deshpande necessarily cannot select a multicast address from the plurality of multicast

addresses. Deshpande therefore fails to disclose or render obvious that a first multicast address of a plurality of multicast addresses is determined at the display device as provided by claim 58.

For at least the reasons given above and in the Appeal Brief, all pending claims are allowable and the Appellants therefore respectfully request reconsideration and allowance of all claims and that this patent application be passed to issue.

Respectfully submitted,

October 28, 2009
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